

# SEA TURTLE RECORDS BARROW ISLAND, WESTERN AUSTRALIA

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Previously published records for Barrow Island sea Turtle fauna include reference to *Chelonia mydas* (Green Turtles) nesting on local beaches and small *Eretmochelys imbricata* (Hawksbill Turtles) swimming in the shallow offshore waters (Butler 1970).

Smith (1976) identified a dead *Chelonia depressa* (Flatback Turtle) on the east coast of Barrow Island and numerous Green Turtles on or near the beaches along the west coast. The CALM West Australian Marine Turtle Research Program has confirmed the West Coast of Barrow Island as a major Green Turtle rookery while Yacht Club beach north of the WAPET camp is recognised as a Flatback Turtle rookery (Prince 1990).

Bob Prince (CALM Marine Turtle Research Program) tagged a single Hawksbill Turtle on Yacht Club beach in January 1993 (RIT Prince pers. com., March 1999).

In November 1996, while conducting a biological intertidal survey of the West Coast of Barrow Island, I found and photographed a juvenile Green Turtle on the Biggada reef flat adjacent to Turtle Bay. I identified the animal as a juvenile Green based on the following characteristics. The carapace of the animal was approximately 40 cm long and 30 cm wide and was high domed (Flatbacks Turtles have a low domed carapace). The head had one pair of prefrontal scales (Hawksbill Turtles have two pairs of prefrontal scales). I have frequently observed small turtles in the shallow nearshore waters of the Barrow, Lowendal and Montebello Island complexes. It is likely these are also juvenile Green Turtles however this is yet to be confirmed.

Peter Pendoley and I made the following observations during a survey of Barrow Island beaches between 15 and 22 January 1999. Eighteen beaches

Table 1. List of marine turtles recorded on beaches of Barrow Island in January 1999.

Beach	Species notes
Yacht Club Surf Point	Flatback Turtle hatchlings Hawksbill Turtle hatchlings, West Australian Museum registration R135619.
Mattress Point south Pipeline Beach (south of Terminal Tanks)	Flatback Turtle hatchlings, nest dug up by a Perentie lizard. Flatback Turtle hatchlings, Flatback Turtle adult.
John Wayne	Hawksbill Turtle hatchlings (not collected, photographic record), Flatback Turtle adult.
Eagles Nest south WAPET Camp south	Flatback hatchlings. Loggerhead skull collected West Australian Museum registration number R135620.

around Barrow Island were surveyed during the day for evidence of sea Turtle nesting. Tracks counts were made and species identified where possible. Emerged nests were dug to identify

hatchling species. Table 1 is a list of the confirmed sightings of animals. The following identifications (Table 2) are based on adult and hatchling track identifications and are yet to be

Table 2. List of marine turtle species identified on Barrow Island beaches in January 1999 from their nesting tracks.

Beach	species	Adult track	Hatchling track	Notes
Yacht Club	Flatback	X	X	
	Hawksbill	X		
Turtle Bay	Flatback	X		
	Hawksbill	X		
Surf Point	Hawksbill		X	Animal collected, lodged with WA Museum
T-Tree	Flatback	X		
Mattress Point	Flatback	X		
	Hawksbill	X		
	Green	X		
Cape Dupuy (west)	Flatback	X		
	Green	X		
Whites	Flatback	X	X	
	Green	X		
	Green	X		
Lucky's Bay				No evidence of animals
Boomerang Island (east)				No evidence of animals
Pipeline	Flatback	X	X	Adult-night observation
	Green	X		
	Hawksbill	X		
John Wayne	Hawksbill	X	X	Hatchling photographed and released.
	Green	X		
	Flatback	X	X	Adult-night observation
Bandicoot Bay				No evidence of animals
Little Bandicoot Bay				No evidence of animals
Eagles Nest (south)	Hawksbill	X		
	Green	X		Numerous Turtle carcasses in dune blowout
The Chair (north)	Flatback	X	X	
	Hawksbill or	X		
WAPET Camp (south)	Flatback	X	X	
	Flatback	X		
Perentie II (north)				No evidence of animals
Flacourt Bay	Flatback	X		
	Green	X		

confirmed by observations of actual animals. Flatback Turtle hatchling track identification is relatively straightforward as the tracks of the Flatback Turtle hatchlings are wider than Green or Hawksbill Turtle hatchlings and the track pattern is characterised by an offset gait and widely spaced flipper marks. A method to accurately identify adult species through track measurements was trialed in the field and will be the subject of a separate paper.

It is interesting to note that while Barrow Island is recognised as an important Green Turtle rookery there was very little evidence of this species nesting on Barrow during this survey (January 1999). The low numbers of Green Turtles made it much easier to see the Hawksbill and Flatback Turtle tracks that would otherwise have been obliterated by the much larger Green nesting population. As part of my PhD program I will be resurveying the Barrow Island beaches over the next four summer nesting seasons (1999/2000, 2000/2001, 2001/2002, 2002/2003) for nesting species and effort. I

am also carrying out this work on Lowendal and Montebello Island beaches for the same time frame. The results will be incorporated into both local (oil field operators) and regional (CALM, DEP) environmental management plans.

## REFERENCES

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